

# **FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**

## **OFFICE OF AIR MANAGEMENT**

**Mar-Zane, Inc.  
15215 River Avenue  
Noblesville, Indiana 46060**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F057-7092-03300	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary hot batch mix asphalt plant.

Responsible Official: Larry E. Young - Vice President  
Source Address: 15215 River Ave., Noblesville, Indiana 46060  
Mailing Address: P.O. Box 655, Noblesville, Indiana 46061  
SIC Code: 2951  
County Location: Hamilton  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (1) one (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million (MM) British thermal units (Btu) per hour, using No.2 fuel oil as a backup fuel, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);
- (2) cold mix asphalt storage piles; and
- (3) one (1) asphalt cement storage tank with a maximum capacity of 30,000 gallons.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):.

- (1) One (1) hot oil heater rated at 2.0 mmBtu per hour combusting natural gas and No.2 fuel oil as a backup, and exhausting through one (1) stack;
- (2) one (1) portable No.2 distillate fuel oil storage tank with a maximum storage capacity of 10,000 gallons;
- (3) one (1) portable emulsion storage tank with a maximum storage capacity of 10,000 gallons;
- (4) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (5) paved and unpaved roads and parking lots with public access;
- (6) truck and conveyor transfer operations; and
- (7) aggregate stockpiles and vehicular trafficking.

**A.4 FESOP Applicability [326 IAC 2-8-2]**

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

**A.5 Prior Permit Conditions**

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- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

**SECTION B GENERAL CONDITIONS**

**B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]**

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Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

**B.2 Definitions [326 IAC 2-8-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

**B.3 Permit Term [326 IAC 2-8-4(2)]**

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This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

**B.4 Enforceability [326 IAC 2-8-6]**

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- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.

**B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.6 Severability [326 IAC 2-8-4(4)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

**B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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This permit does not convey any property rights of any sort, or any exclusive privilege.

**B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]**

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- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAM may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was based on continuous or intermittent data;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;



- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM, .

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM , within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM , by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM , may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM , by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

- (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
  - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
  - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**

**[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due. [326 IAC 2-5-3]
- (2) If IDEM, OAM upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]  
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]**

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Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated by U.S. EPA.

**B.20 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]**

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The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

**B.21 Operational Flexibility [326 IAC 2-8-15]**

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(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM , in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and

- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.  
[326 IAC 2-8-5(a)(4)]
  - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM,

or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

- (2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

**B.24 Transfer of Ownership or Operation [326 IAC 2-1-6][326 IAC 2-8-10]**

Pursuant to 326 IAC 2-1-6 and 2-8-10:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-8-10. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) IDEM, OAM shall reserve the right to issue a new permit.

**B.25 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]**

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

**SECTION C SOURCE OPERATION CONDITIONS**

Entire Source
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**Emissions Limitations and Standards [326 IAC 2-8-4(1)]**

**C.1 Overall Source Limit [326 IAC 2-8]**

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.



- (a) Pursuant to 326 IAC 2-8:
- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
  - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per three hundred sixty-five (365) consecutive day period; and
  - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per three hundred sixty-five (365) consecutive day period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per three hundred sixty-five (365) consecutive day period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.5 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

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Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 10, 1988. The plan consists of:

- (a) the dust from the roads be swept or treated with water or dust suppressant on an as needed basis; and
- (b) the dust from the handling and storage of all materials be treated with water or dust suppressant on an as needed basis.

**C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

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All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.8 Stack Height [326 IAC 1-7]**

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- (a) The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

**C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.10 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by the IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notify:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **C.12 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]**

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

#### **C.13 Monitoring Methods [326 IAC 3]**

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

#### **C.14 Pressure Gauge Specifications**

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.

### **Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

(a) Submit:

- (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
  - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
  - (3) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4][326 IAC 2-8-5]  
[326 IAC 1-6]

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- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM, . The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

### **C.18 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

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- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

### **C.19 Monitoring Data Availability**

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- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

### **C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]**

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- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative.

The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)]**

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- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:



Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]

- (1) one (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million (MM) British thermal units (Btu) per hour, using No.2 fuel oil as a backup fuel, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 12.35 pounds per hour.

#### D.1.2 Particulate Matter (PM) [326 IAC 6-3]

The allowable PM emission rate from the woodworking facilities shall not exceed 66.31 pounds per hour when operating at a process weight rate of 800,000 pounds per hour (equivalent to 400 tons per hour).

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

#### D.1.3 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the aggregate mixing and drying operation shall not exceed 21.9 pounds per hour, including both filterable and condensable fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

#### D.1.4 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

#### D.1.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 150.0 million Btu per hour burner for the aggregate dryer shall be limited to 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.50% when using distillate oil.

#### D.1.6 NO<sub>x</sub> Emissions - Natural gas usage [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the following limit shall apply:

- (a) The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 698.21 million cubic feet (MMCF) per twelve (12) consecutive month period, rolled on a monthly basis.

- (b) For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed:
  - (i) every 1000 gallons (kgal) of No.2 fuel oil burned is equivalent to 0.0714 MMCF of natural gas burned;
- (c) The total amount of natural gas and natural gas equivalents for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.
- (d) During the first twelve (12) months of operation under this permit, the input of natural gas and natural gas equivalents shall be limited such that the total million cubic feet (MMCF) burned divided by the accumulated months of operation shall not exceed 58.18 MMCF per month.

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.7 SO<sub>2</sub> Emissions - Fuel oil usage [326 IAC 2-8-4]

- (a) The input of No. 2 fuel oil and No.2 fuel oil equivalents to the aggregate dryer shall be limited to 2,663,662 U.S. gallons per twelve (12) consecutive months, rolled on a monthly basis and based on No. 2 fuel oil having a maximum sulfur content of 0.50%.
- (b) For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed:
  - (i) every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned;
- (c) The total amount of No. 2 fuel oil and No.2 fuel oil equivalents for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.
- (d) During the first twelve (12) months of operation under this permit, the input of NO.2 fuel oil and natural gas equivalence shall be limited such that the total gallons burned divided by the accumulated months of operation shall not exceed 221,971 U.S. gallons per month

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

**Compliance Determination Requirements**

D.1.9 Testing Requirements [326 IAC 2-8-5(1)]

During the period between 18 and 24 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner to document compliance with Condition D.1.1 and D.1.2. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10.

D.1.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the No.4 fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:

- (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
- (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
  - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 150.0 MMBtu per hour burner for the aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

#### **D.1.11 Particulate Matter (PM)**

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The baghouse for PM control shall be in operation at all times when the aggregate dryer is in operation and exhausting to the outside atmosphere.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### **D.1.12 Visible Emissions Notations**

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- (a) Daily visible emission notations of the aggregate dryer baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

##### **D.1.13 Parametric Monitoring**

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The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer, at least once daily when the aggregate dryer is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

#### **D.1.14 Broken Bag or Failure Detection**

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In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.
- (b) Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.1.15 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.6, the Permittee shall maintain records in accordance with (1) through (2) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual natural gas and No. 2 distillate fuel oil equivalence usage per month since last compliance determination period and equivalent NOx emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period.
- (b) To document compliance with Conditions D.1.7 and D.1.10, the Permittee shall maintain records in accordance with (1) through (6) below.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual No. 2 distillate fuel oil and natural gas equivalence usage per month since last compliance determination period and equivalent sulfur dioxide emissions;
  - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (c) To document compliance with Condition D.1.12, the Permittee shall maintain records of daily visible emission notations of the aggregate dryer baghouse stack exhaust.
- (d) To document compliance with Condition D.1.13, the Permittee shall maintain the following records as specifically related to the baghouse:
  - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event .
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.
  - (8) Documentation of the dates vents are redirected.
- (e) To document compliance with Condition D.1.14 the Permittee shall maintain records of the results of the inspections required under Condition D.1.14.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## SECTION D.2

## FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]  
cold mix asphalt storage piles;

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Cold-Mix (Stockpile Mix) VOC Usage [326 IAC 2-8-4]

- (a) The usage of diluent in the production of cold mix (stockpile mix) asphalt shall be limited to 319.27 tons per twelve (12) consecutive month period, rolled on a monthly basis. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. This is equivalent to a VOC emission limit of 76.63 tons per twelve (12) consecutive month period in the production of cold mix (stockpile mix) asphalt. During the first twelve (12) months of operation under this permit, the usage of diluent shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 26.60 tons per month.
- (b) The volume percent of diluent in the cutback asphalt shall not exceed 7.0%.
- (c) The VOC content of the diluent shall not exceed 35.0% by weight.

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-5-2] [326 IAC 2-8-4]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) of distillate by volume of emulsion for any paving application except:

- (1) penetrating prime coating;
- (2) stockpile storage;
- (3) application during the months of November, December, January, February, and March.

### Compliance Determination Requirements

#### D.2.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limits specified in Conditions D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

#### D.2.4 Record Keeping Requirements

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of cold mix asphalt throughput in tons per month.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.2.5 Reporting Requirements**

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

### **SECTION D.3 FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-8-4(10)]  
one (1) asphalt cement storage tank with a maximum storage capacity of 30,000 gallons.

#### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

##### **D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]**

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the 30,000 gallon asphalt cement storage tank, with a vapor pressure of less than 15.0 kPa, is subject to 40 CFR Part 60.116b, paragraphs (a) through (c) which requires record keeping.

#### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

##### **D.3.2 Record Keeping Requirements [40 CFR 60.110b, Subpart Kb]**

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:
- (1) the dimension of the storage vessel;
  - (2) an analysis showing the capacity of the storage vessel; and
  - (3) the true vapor pressure of each VOC stored, indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Mar-Zane, Inc.  
Source Address: 15215 River Ave, Noblesville, Indiana 46060  
Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
FESOP No.: F057-7092-03300

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify) \_\_\_\_\_
- ☐ Report (specify) \_\_\_\_\_
- ☐ Notification (specify) \_\_\_\_\_
- ☐ Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Mar-Zane, Inc.  
Source Address: 15215 River Ave, Noblesville, Indiana 46060  
Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
FESOP No.: F057-7092-03300

**This form consists of 2 pages**

**Page 1 of 2**

Check either No. 1 or No.2

- ☐ 1. This is an emergency as defined in 326 IAC 2-7-1(12)  
•The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
•The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
- ☐ 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c)  
•The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/Deviation:

Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation?      Y      N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Mar-Zane, Inc.  
Source Address: 15215 River Ave, Noblesville, Indiana 46060  
Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
FESOP No.: F057-7092-03300  
Facility: Aggregate dryer  
Parameter: NOx Emissions  
Limit: The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 698.21 million cubic feet (Mmcf) per twelve (12) consecutive month period. For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed: every 1000 gallons (kgal) of No.2 fuel oil burned is equivalent to 0.0714 MMCF of natural gas burned;

YEAR: \_\_\_\_\_

Month	Natural Gas and equivalent usage (MMCF)	Natural Gas and equivalent usage (MMCF)	Natural Gas and equivalent usage (MMCF/yr)
	This Month	Previous 11 Months	12 Month Total

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Mar-Zane, Inc.  
Source Address: 15215 River Ave, Noblesville, Indiana 46060  
Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
FESOP No.: F057-7092-03300  
Facility: Aggregate dryer  
Parameter: SO<sub>2</sub> Emissions  
Limit: The input of No. 2 fuel oil and No.2 fuel oil equivalents to the aggregate dryer shall be limited to 2,663,662 U.S. gallons per twelve (12) consecutive months, rolled on a monthly basis and based on No. 2 fuel oil having a maximum sulfur content of 0.50%. For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed: every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned;

YEAR: \_\_\_\_\_

Month	No.2 Fuel oil and equivalent usage (U.S. Gallons)	No.2 Fuel oil and equivalent usage (U.S. Gallons)	No.2 Fuel oil and equivalent usage (U.S. Gallons/year)
	This Month	Previous 11 Months	12 Month Total

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

## OFFICE OF AIR MANAGEMENT

### COMPLIANCE DATA SECTION

#### FESOP Quarterly Report

Source Name: Mar-Zane, Inc.  
 Source Address: 15215 River Ave, Noblesville, Indiana 46060  
 Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
 FESOP No.: F057-7092-03300  
 Facility: Stockpile mix  
 Parameter: VOC  
 Limit: The usage of diluent in the production of cold mix (stockpile mix) asphalt shall be limited to 319.27 tons per twelve (12) consecutive month period, rolled on a monthly basis. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. This is equivalent to a VOC emission limit of 76.63 tons per twelve (12) consecutive month period in the production of cold mix (stockpile mix) asphalt. During the first twelve (12) months of operation under this permit, the usage of diluent shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 26.60 tons per month.

YEAR: \_\_\_\_\_

Month	Cold mix asphalt throughput (tons)	Cold mix asphalt throughput (tons)	Cold mix asphalt throughput (tons/year)
	This Month	Previous 11 Months	12 Month Total

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Mar-Zane, Inc.  
Source Address: 15215 River Ave, Noblesville, Indiana 46060  
Mailing Address: P.O.Box 655, Noblesville, Indiana 46061  
FESOP No.: F057-7092-03300

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# Indiana Department of Environmental Management Office of Air Management

## Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

### Source Background and Description

**Source Name:** Mar-Zane, Inc.  
**Source Location:** 15215 River Ave, Noblesville, Indiana 46060  
**County:** Hamilton  
**SIC Code:** 2951  
**Operation Permit No.:** F057-7092-03300  
**Permit Reviewer:** Jeremy Magliaro/EVP

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Mar-Zane, Inc. relating to the operation of a hot batch mix asphalt plant.

### Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

### Unpermitted Emission Units and Pollution Control Equipment Requiring ENSR

The source consists of the following unpermitted emission units and pollution control devices:

- (1) one (1) stationary hot asphalt batch mixer and aggregate dryer, with a maximum capacity of 400 tons per hour, equipped with one (1) natural gas-fired burner with a rated heat input of 150 million (MM) British thermal units (Btu) per hour, using No.2 fuel oil as a backup fuel, utilizing one (1) baghouse for particulate matter (PM) emissions control, and exhausting through one (1) stack (Stack ID: SV1);
- (2) cold mix asphalt storage piles; and
- (3) one (1) asphalt cement storage tank with a maximum capacity of 30,000 gallons.

### New Emission Units and Pollution Control Equipment Requiring ENSR

There are no new facilities to be reviewed under the ENSR process.

### Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) One (1) hot oil heater rated at 2.0 mmBtu per hour combusting natural gas and No.2 fuel oil as a backup, and exhausting through one (1) stack;
- (2) one (1) portable No.2 distillate fuel oil storage tank with a maximum storage capacity of 10,000 gallons;
- (3) one (1) portable emulsion storage tank with a maximum storage capacity of 10,000 gallons;
- (4) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (5) paved and unpaved roads and parking lots with public access;



- (6) truck and conveyor transfer operations; and
- (7) aggregate stockpiles and vehicular trafficking.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (1) Construction Permit No. PC (29) 1701, issued September 2, 1988;
- (2) Operation Permit No. 99-08-92-3300, issued on May 26, 1989;
- (3) Amendment to Operation Permit No. 99-08-92-3300, issued July 23, 1990

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (1) Operation Permit No. 99-08-92-3300, issued on May 26, 1989;

*Condition #6: That this plant has been approved for operation in all areas of the State, based on the requirements to prevent significant deterioration of the ambient air as specified in 326 IAC 2-2 and 2-3. However, a 30-day advance notice of relocation must be given to the OAM and a new "Site Approval" letter obtained before relocating.*

Reason not incorporated: The applicant has indicated in the FESOP application that this plant is a stationary asphalt plant. Therefore, this plant is not being permitted to operate anywhere in the state because it is no longer being permitted as a portable asphalt plant.

- (2) Amendment to Operation Permit No. 99-08-92-3300, issued July 23, 1990

*Condition: The asphalt plant hourly capacity is amended to read 267 tons per hour (derated from 400 tons per hour).*

Reason not incorporated: The applicant has indicated that the derating resulted from a failed stack test where the source could not operate at a capacity greater than 267 tons per hour at the time, however, the source's current maximum capacity is 400 tons per hour. This source has been permitted to increase operational capacity to 400 tons per hour since there has been no increase in the limited potential to emit of any regulated pollutant that could be emitted from the facility or that results in emissions of any regulated pollutant not previously emitted as a result of the increase in operating capacity.

### Enforcement Issue

- (a) IDEM is aware that equipment has been operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment Requiring ENSR*.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

### Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on November 6, 1996.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations (twelve (12) pages).

## Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as “emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility.”

Pollutant	Potential Emissions (tons/year)
PM	56,092.51
PM-10	7,896.33
SO <sub>2</sub>	337.64
VOC	63,322.13
CO	55.92
NO <sub>x</sub>	185.21

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
acetaldehyde	1.121
arsenic	negligible
benzene	0.613
beryllium	negligible
cadmium	negligible
chromium	negligible
ethylbenzene	5.782
formaldehyde	1.507
manganese	negligible
mercury	negligible
nickel	negligible
quinone	0.473
toluene	3.154
Total POM	0.223
xylene	7.534
TOTAL	20.41

- (a) The potential emissions (as defined in 326 IAC 1-2-55) of PM10, VOC, NOx and SO<sub>2</sub>, are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

### Limited Potential to Emit

- (a) The source has accepted a federally enforceable limit on potential to emit PM-10 of less than 100 tons per year. Source wide PM-10 emissions are controlled at 31.3 tons per year, consisting of:
- (i) 28.39 tons per year for the significant activities (by using a baghouse to control PM-10 emissions from the aggregate dryer; and
  - (ii) 2.91 tons per year from the insignificant activities.
- (b) The source has accepted a federally enforceable limit on potential to emit oxides of Nitrogen (NO<sub>x</sub>) of less than 100 tons per year, consisting of:
- (i) 97.75 tons per year for the significant activities; and
  - (ii) 1.25 tons per year for the insignificant activities.
- (c) The source has accepted a federally enforceable limit on potential to emit Sulfur Dioxide (SO<sub>2</sub>) of less than 100 tons per year, consisting of:
- (i) 94.56 tons per year for the significant activities; and
  - (ii) 4.44 tons per year for the insignificant activities.
- (d) The source has accepted a federally enforceable limit on potential to emit Volatile Organic Compounds (VOC) of less than 100 tons per year, consisting of:
- (i) 98.95 tons per year for the significant activities; and
  - (ii) 0.05 tons per year for the insignificant activities.
- (e) The table below summarizes the total limited potential to emit of the significant and insignificant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Aggregate Dryer	53.26	28.39	94.56	22.33	29.33	97.75	20.41
cold mix VOC storage	--	--	--	76.63	--	--	--
Bin loading and conveying*	0.64	0.30	--	--	--	--	--
Screening and Batch drops*	0.16	0.08	--	--	--	--	--
unpaved roads*	6.43	2.25	--	--	--	--	--
storage piles*	0.59	0.21	--	--	--	--	--
Insignificant Activities	0.13	0.07	4.44	0.05	0.74	1.25	--
Total Emissions	61.2	31.3	99.0	99.0	30.1	99.0	20.4

\* These activities also qualify as insignificant activities (see Insignificant Activities).

## County Attainment Status

The source is located in Huntington County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Hamilton County has been designated as attainment or unclassifiable for ozone.

## Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. This is equivalent to a particulate matter emission rate of 12.35 pounds per hour. The source will comply with this rule by using a baghouse to limit particulate matter emissions to less than 0.04 gr/dscf (see Appendix A, page 10 of 12, for detailed calculations).
- (b) The one (1) 10,000 gallon No. 2 fuel oil storage tank, and one (1) 10,000 gallon emulsion storage tank, (see Insignificant Activities) are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because the tanks each have a storage capacity less than 40 cubic meters.
- (c) The one (1) 30,000 gallon asphalt cement storage tank is subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because it was installed after July 23, 1984, and has a storage capacity greater than 40 cubic meters. However, since the tank has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid asphalt cement stored in the tank has a maximum true vapor pressure of less than 15.0 kPa, the tank is subject to only 40 CFR Part 60.116b, paragraph (a) through (c) which requires record keeping.
- (d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63, applicable to this source.

## State Rule Applicability - Entire Source

### 326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on November 6, 1996. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

### 326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), which would require the source to submit an annual emission statement. Pursuant to this rule, any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is enforceable. This source has accepted federally enforceable operation conditions which limit emissions of PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and VOC to below 100 tons per year. Therefore, the requirements of 326 IAC 2-6 do not apply.

### 326 IAC 2-8-4 (FESOP)

The following operational limitations are necessary in order to limit emissions of criteria pollutants below 100 tons per year to comply with 326 IAC 2-8-4 (FESOP) and to avoid 326 IAC 2-7 (Part 70).

- (1) The consumption of natural gas and No. 2 fuel oil in the 150.0 million Btu per hour aggregate dryer burner must be limited such that source-wide emissions of SO<sub>2</sub> and NO<sub>x</sub> are less than 100.0 tons per year (see Appendix A, page 7 and 8 of 12 for detailed fuel usage limit calculations). The total fuel input to the 150.0 mmBtu per hour burner for the aggregate dryer shall be limited as follows to ensure compliance with 326 IAC 2-8 (FESOP):
  - (a) The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 698.21 million cubic feet (Mmcf) per twelve (12) consecutive month period. This limit, when combined with NO<sub>x</sub> emissions from other operations, shall limit the source-wide potential to emit NO<sub>x</sub> to less than 100.0 tons per year. For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed:
    - (i) every 1000 gallons (kgal) of No.2 fuel oil burned is equivalent to 0.0714 MMCF of natural gas burned;
  - (b) The input of No. 2 fuel oil and No.2 fuel oil equivalents to the aggregate dryer shall be limited to 2,663,662 U.S. gallons per twelve (12) consecutive months based on No. 2 fuel oil having a maximum sulfur content of 0.50%. This limit, when combined with SO<sub>2</sub> emissions from other operations, shall limit the source-wide potential to emit SO<sub>2</sub> to less than 100.0 tons per year. For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed:
    - (i) every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned;

The total amount of natural gas and No. 2 fuel oil equivalents combined shall not exceed the limits specified. The total for each month shall not exceed the difference between the annual limit minus the sum of actual usage from the previous eleven (11) months. Compliance is based on the total fuel used during the previous 12 months.

- (2) PM-10 emissions from the aggregate dryer shall be limited to 21.90 pounds per hour. The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions from the aggregate dryer to 6.48 pounds per hour. This limit, when combined with PM-10 emissions from other operations, shall limit the source-wide potential to emit PM-10 to less than 100.0 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

- (3) The throughput of cold-mix (stockpile mix) asphalt must be limited to 4,561 tons per year, based on a maximum 7.0% of cutback asphalt or emulsion in total cold-mix asphalt produced with a maximum oil distillate content of 35.0% in cutback asphalt, in order to ensure compliance with 326 IAC 8-5-2 (Asphalt Paving Rule) and 326 IAC 2-8 (FESOP). This shall limit the potential to emit VOC from this operation to 76.63 tons per year. This limit, when combined with potential VOC emissions from aggregate drying and insignificant activities (22.37 tons/yr), shall limit the source-wide potential to emit VOC to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 6-4 (Fugitive Dust Emissions)**

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

**326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)**

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 10, 1988. The plan consists of:

- (a) the dust from the roads be swept or treated with water or dust suppressant on an as needed basis; and
- (b) the dust from the handling and storage of all materials be treated with water or dust suppressant on an as needed basis.

**State Rule Applicability - Individual Facilities**

**326 IAC 6-1-2 (Particulate Emissions Limitations)**

The particulate matter emissions from the aggregate mixing and drying operation are not subject to the requirements of 326 IAC 6-1-2 (Particulate Emissions Limitations) because this source is not located in any of the counties listed in 326 IAC 6-1-7.

**326 IAC 6-3-2 (Process Operations)**

The particulate matter (PM) from the aggregate dryer shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 * P^{0.11} - 40$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

$$66.31 = 55.0 * 400.00^{0.11} - 40 \quad \text{where } E = 66.31 \\ P = 400.00$$

According to the emission calculations, when operating with the baghouse the aggregate dryer has a potential to emit (PTE) PM of 12.16 pounds per hour (equivalent to 53.26 tons per year), and the source is in compliance with the requirement. (See emission calculations, pages 10 of 12).

**326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

- (a) The sulfur dioxide emissions from the 150.0 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.50%. Therefore, the sulfur content of the fuel must be less than or equal to 0.50% in order to comply with this rule (see Appendix A, Page 10 of 12 for detailed calculations). The source will comply with this rule by using No. 2 distillate fuel oil with a sulfur content of 0.5% or less in the dryer.
- (b) The one (1) insignificant hot oil heater is not subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitation), because it has a potential to emit less than 25 tons per year and 10 pounds per hour sulfur dioxides. Therefore, this rule does not apply to this unit.

**326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)**

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Management upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

**326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)**

- (a) Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), no person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) of distillate by volume of emulsion for any paving application except:
  - (1) penetrating prime coating;
  - (2) stockpile storage;
  - (3) application during the months of November, December, January, February, and March.

**Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The conveying, material transfer points, screening, unpaved roads, storage piles, and mixing and drying operations have applicable compliance monitoring conditions as specified below:
  - (a) Daily visible emissions notations of the conveying, material transfer points, screening, unpaved roads, storage piles, and mixing and drying operations shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.
  - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the mixing and drying, at least once daily when the aggregate dryer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for the mixing and drying process must operate properly to ensure compliance with 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities" and 326 IAC 2-8 (FESOP).

2. The consumption of natural gas and No. 2 fuel oil in the 150.0 million Btu per hour aggregate dryer burner must be limited such that source-wide emissions of SO<sub>2</sub> and NO<sub>x</sub> are less than 100 tons per year.
  - (a) The input of natural gas and natural gas equivalents to the aggregate dryer burner shall not exceed 698.21 million cubic feet (Mmcf) per twelve (12) consecutive month period. For purposes of determining compliance, when No.2 fuel oil is burned, the following equivalency calculation shall be performed:
    - (i) every 1000 gallons (kgal) of No.2 fuel oil burned is equivalent to 0.0714 MMCF of natural gas burned;
  - (b) The input of No. 2 fuel oil and No.2 fuel oil equivalents to the aggregate dryer shall be limited to 2,663,662 U.S. gallons per twelve (12) consecutive months based on No. 2 fuel oil having a maximum sulfur content of 0.50%. For purposes of determining compliance, when natural gas is burned, the following equivalency calculations shall be performed:
    - (i) every MMCF of natural gas burned is equivalent to 8.4 gallons of No.2 fuel oil burned;



- (c) Quarterly reports shall be submitted to OAM Compliance Section. These reports shall include:
  - (i) the monthly usage of No. 2 fuel oil and equivalents in gallons for SO<sub>2</sub> emissions
  - (ii) the monthly usage of natural gas and equivalents in MMCF for NO<sub>x</sub> emissions; and
  - (ii) sulfur content and heating value of the No.2 fuel oil.

These monitoring conditions are necessary because SO<sub>2</sub> and NO<sub>x</sub> emissions from the combustion of No. 2 fuel oil and natural gas must be limited to below the Title V major source level of 100 tons per year. Additionally, the sulfur content of the fuel oils must comply with 326 IAC 7-1.1. The source must demonstrate compliance with the FESOP limit and also with limits established in 326 IAC 2-8-4 and 326 IAC 7-1.1.

- 3. The production of cold-mix (stockpile mix) asphalt has applicable compliance monitoring conditions as specified below:
  - (a) The throughput of cold-mix (stockpile mix) asphalt must be limited to 4,561 tons per year, based on a maximum 7.0% of cutback asphalt or emulsion in total cold-mix asphalt produced with a maximum oil distillate content of 35.0% in cutback asphalt, in order to ensure compliance with 326 IAC 8-5-2 (Asphalt Paving Rule) and 326 IAC 2-8 (FESOP). Therefore, the requirements of 326 IAC 2-7 do not apply.
  - (b) Quarterly reports shall be submitted to OAM. These reports shall include the amount of cold-mix (stockpile mix) asphalt produced per year, rolled on a monthly basis.

### Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations (page 11 and 12 of 12, Appendix A).

### Conclusion

The operation of this hot batch mix asphalt plant shall be subject to the conditions of the attached proposed **FESOP No. F057-7092-03300**.

Company Name:  
Plant Location:  
County:  
Date:  
Permit Reviewer:

Mar-Zane Inc.  
15215 River Ave., Noblesville, IN 46060  
Hamilton  
October 28, 1998  
Jeremy Magliaro/EVP

**\*\* hot oil heater\*\***

The following calculations determine the amount of emissions created by natural gas combustion, from hot oil heating, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:  $\frac{2.00 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{1000 \text{ Btu/cf}} \times \text{Ef (lb/MMcf)} = (\text{ton/yr})$

P M:	7.60 lb/MMcf =	0.07 ton/yr
P M-10:	7.60 lb/MMcf =	0.07 ton/yr
S O 2:	0.6 lb/MMcf =	0.01 ton/yr
N O x:	100.0 lb/MMcf =	0.88 ton/yr
V O C:	5.5 lb/MMcf =	0.05 ton/yr
C O:	84.0 lb/MMcf =	0.74 ton/yr

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from hot oil heating, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-8.

Criteria Pollutant:  $\frac{2.00 \text{ MMBtu/hr} \times 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal}} \times \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$

P M:	2.0 lb/1000 gal =	0.13 ton/yr
P M-10:	1.0 lb/1000 gal =	0.06 ton/yr
S O 2:	71.0 lb/1000 gal =	4.44 ton/yr
N O x:	20.0 lb/1000 gal =	1.25 ton/yr
V O C:	0.34 lb/1000 gal =	0.02 ton/yr
C O:	5.0 lb/1000 gal =	0.31 ton/yr

Since the two fuels cannot be operated concurrently, the maximum potential emissions from the hot oil heater due to fuel combustion is as follows:

Criteria Pollutant:		Worst Case Fuel
P M:	0.13 ton/yr	No. 2 Fuel Oil
P M-10:	0.07 ton/yr	Natural Gas
S O 2:	4.44 ton/yr	No. 2 Fuel Oil
N O x:	1.25 ton/yr	No. 2 Fuel Oil
V O C:	0.05 ton/yr	Natural Gas
C O:	0.74 ton/yr	Natural Gas

Mar-Zane Inc.  
Noblesville, Indiana

Operation Permit No. F057-7092  
Plant I D 057-00165

**\*\* aggregate dryer burner\*\***

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	150 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf	* 2,000 lb/ton

P M:	7.60 lb/MMcf =	4.99 ton/yr
P M-10:	7.60 lb/MMcf =	4.99 ton/yr
S O 2:	0.6 lb/MMcf =	0.39 ton/yr
N O x:	280.0 lb/MMcf =	183.96 ton/yr
V O C:	5.5 lb/MMcf =	3.61 ton/yr
C O:	84.0 lb/MMcf =	55.19 ton/yr

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-2, 1.3-4, and 1.3-7.

Criteria Pollutant:	150 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)
	140,000 Btu/gal	* 2,000 lb/ton

P M:	2.0 lb/1000 gal =	9.39 ton/yr
P M-10:	1.0 lb/1000 gal =	4.69 ton/yr
S O 2:	71.0 lb/1000 gal =	333.19 ton/yr
N O x:	20.0 lb/1000 gal =	93.86 ton/yr
V O C:	0.20 lb/1000 gal =	0.94 ton/yr
C O:	5.0 lb/1000 gal =	23.46 ton/yr

Since the two fuels cannot be operated concurrently, the maximum potential emissions from the aggregate dryer due to fuel combustion is as follows:

Criteria Pollutant:		Worst Case Fuel
P M:	9.39 ton/yr	No. 2 Fuel Oil
P M-10:	4.99 ton/yr	Natural Gas
S O 2:	333.19 ton/yr	No. 2 Fuel Oil
N O x:	183.96 ton/yr	Natural Gas
V O C:	3.61 ton/yr	Natural Gas
C O:	55.19 ton/yr	Natural Gas

**\*\* Aggregate Dryer Burner\*\***

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-2 and 11.1-9 for a natural gas or fuel oil-fired batch mix dryer:

Pollutant:	Ef	lb/ton x	400	ton/hr x	8,760 hr/yr
			2,000	lb/ton	

Criteria Pollutant:			
P M:	32	lb/ton =	56,064.00 ton/yr
P M-10:	4.5	lb/ton =	7,884.00 ton/yr
VOC:	0.011647	lb/ton =	20.41 ton/yr

The VOC emission factor represents the sum of the volatile organic pollutant emission factors for the dryer from Table 11.1-9.

**\*\* conveying / handling \*\***

The following calculations determine the amount of emissions created by wet (>1.3% moisture) material handling, based on 8,760 hours of use and AP-42, Section 11.19.2, Table 11.19.2-2. Emission factors for process operations are as follows:

PM-10 Emissions Per Operation:

$$\frac{260 \text{ ton/hr} \times 8,760 \text{ hrs/yr} \times \text{Ef (lb/ton of material)} \times \text{Number of Similar Operations}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Operation			
Truck Loading:	1 operation(s) x 1.0E-04 lb/ton of material =	0.11 ton/yr	
Conveyor Transfers:	9 operation(s) x 4.8E-05 lb/ton of material =	0.49 ton/yr	
Screening:	1 operation(s) x 8.4E-04 lb/ton of material =	0.96 ton/yr	
Batch Drops:	7 operation(s) x 1.0E-04 lb/ton of material =	0.80 ton/yr	
<b>Total PM 10 Emissions:</b>		<b>2.36 ton/yr</b>	
<b>Total PM Emissions:</b>		<b>4.96 ton/yr</b>	

Total PM Emissions (tons/yr) = 2.1 \* Total PM-10 Emissions (tons/yr) based on US EPA's AP-42, 5th Edition, Section 11.19.2, Table 11.19.2-2, footnote c.

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 13.2.2.2.

I. Single- Axle Trucks

$$\begin{aligned} & 3.25 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8,760 \text{ hr/yr} = \end{aligned}$$

$$2847 \text{ miles per year}$$

$$\begin{aligned} \text{Ef} &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 1.26 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ e size multiplier) } \\ s &= 4.8 \text{ \% silt content of unpaved roads } \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches } \\ S &= 10 \text{ miles/hr vehicle speed } \\ W &= 11 \text{ tons average vehicle weight } \\ w &= 6 \text{ wheels } \end{aligned}$$

$$\frac{1.26 \text{ lb/mi} \times 2847 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.79 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 0.63 \text{ tons/yr}$$

## II. Tandem-Axle Trucks

$$\begin{aligned} & 2.165 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8,760 \text{ hr/yr} = 1896.54 \text{ miles per year} \end{aligned}$$

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 2.07 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ e size multiplier) } \\ s &= 4.8 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 16 \text{ tons average vehicle weight} \\ w &= 10 \text{ wheels} \end{aligned}$$

$$\frac{2.07 \text{ lb/mi} \times 1896.54 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.96 \text{ tons/yr}$$

P M-10: 35% of PM = 0.69 tons/yr

## III. Tri-Axle Trucks

$$\begin{aligned} & 1.625 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8,760 \text{ hr/yr} = 1423.5 \text{ miles per year} \end{aligned}$$

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 3.02 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ e size multiplier) } \\ s &= 4.8 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 21 \text{ tons average vehicle weight} \\ w &= 14 \text{ wheels} \end{aligned}$$

$$\frac{3.02 \text{ lb/mi} \times 1423.5 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.15 \text{ tons/yr}$$

P M-10: 35% of PM = 0.75 tons/yr

## IV. Quad-Axle Trucks

$$\begin{aligned} & 1.3 \text{ trip/hr} \times \\ & 0.05 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8,760 \text{ hr/yr} = 1138.8 \text{ miles per year} \end{aligned}$$

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 3.93 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ e size multiplier) } \\ s &= 4.8 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 26 \text{ tons average vehicle weight} \\ w &= 18 \text{ wheels} \end{aligned}$$

$$\frac{3.93 \text{ lb/mi} \times 1138.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 2.24 \text{ tons/yr}$$

P M-10: 35% of PM = 0.78 tons/yr

## V. Loader

$$\begin{aligned} & 23.45 \text{ trip/hr} \times \\ & 0.01 \text{ mile/trip} \times \\ & 2 \text{ (round trip)} \times \\ & 8,760 \text{ hr/yr} = 4108.44 \text{ miles per year} \end{aligned}$$

$$E_f = k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365)$$

$$= 2.30 \text{ lb/mile}$$

where k = 0.8 e size multiplier)  
s = 4.8 % silt content of unpaved roads  
p = 125 days of rain greater than or equal to 0.01 inches  
S = 10 miles/hr vehicle speed  
W = 35 tons average vehicle weight  
w = 4 wheels

$$\frac{2.30 \text{ lb/mi} \times 4108.44 \text{ mi/yr}}{2000 \text{ lb/ton}} = 4.73 \text{ tons/yr}$$

P M-10: 35% of PM = 1.65 tons/yr

**Total PM Emissions From Unpaved Roads = 12.86 tons/yr**

**Total PM-10 Emissions From Unpaved Roads = 4.50 tons/yr**

**\*\* storage \*\***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	PM Emissions tons/yr	PM-10 Emissions tons/yr
Sand	1.1	1.50	35,000	0.35	0.12
Gravel	0.9	1.50	35,000	0.29	0.10
Limestone	1.2	1.50	35,000	0.38	0.13
RAP	0.8	0.97	25,000	0.16	0.06
<b>Total</b>				<b>1.18</b>	<b>0.41</b>

Sample Calculation:

$$E_f = 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15)$$

$$= 1.27 \text{ lb/acre/day}$$

where s = 1.1 % silt  
p = 125 days of rain greater than or equal to 0.01 inches  
f = 15 % of wind greater than or equal to 12 mph

$$E_p (\text{storage}) = \frac{E_f \cdot (\text{Pile Size in acres}) \cdot (365 \text{ day/yr})}{(2,000 \text{ lb/ton})}$$

**PM = 0.35 tons/yr      P M-10: 35% of PM = 0.12 tons/yr**

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**\*\*cold mix VOC storage emissions \*\***

The following calculations determine the amount of VOC emissions created by the application of stockpile mix with 35.0% oil distillate in cutback asphalt, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 4.5, Table 4-5-1.

VOC Emission Factor = 24.00% weight percent flash-off of cold mix  
Potential Throughput (tons/yr) 3,767,742 tons/yr stockpile mix

Potential VOC Emissions (tons/yr) = Potential Throughput (tons/yr) \* wt percent cutback asphalt \* wt percent flash-off  
**Potential VOC Emissions = 63,298.06 tons/yr**

Potential stockpile mix throughput is based on a stockpile mix consisting of 7% cutback asphalt and 93% aggregate.  
Potential Throughput (tons/yr) = Potential aggregate throughput / 93% aggregate in stockpile mix

**\* \* summary of source emissions before controls \* \***

Criteria Pollutants:

<b>P M:</b>	<b>56,092.51 ton/yr</b>	
<b>P M-10:</b>	<b>7,896.33 ton/yr</b>	
<b>S O 2:</b>	<b>337.64 ton/yr</b>	
<b>N O x:</b>	<b>185.21 ton/yr</b>	
<b>V O C:</b>	<b>63,322.13 ton/yr</b>	(VOCs include HAPs from aggregate drying operation)
<b>C O:</b>	<b>55.92 ton/yr</b>	

**\*\* Aggregate dryer fuel usage limitations\*\***

**Primary Fuel Usage Limitation - Natural Gas**

In order to qualify for the FESOP program, this facility must limit NOx emissions from natural gas combustion to 99 tons per year. The NOx emissions from the aggregate dryer must be limited to (99.0 - 1.25 tons/yr from hot oil heater) = 97.75 tons per year.

The following calculations determine the amount of NOx emissions created by natural gas combustion with a fuel usage limit of 698.21 MMcf/year in order to limit potential NOx emissions to 99.0 tons/yr.

Fuel Oil: Natural Gas

$$\frac{97.75 \text{ tons NOx/year limited}}{183.96 \text{ tons NOx/year potential}} * 1314.00 \frac{\text{MMCF}}{\text{year potential}} = 698.21 \frac{\text{MMCF}}{\text{year limited}}$$

$$\text{Natural Gas: } \frac{698.21 \text{ MMcf/year}}{1000 \text{ Btu/cf} * 2,000 \text{ lb/ton}} * \text{Ef (lb/MMcf)} = (\text{ton/yr})$$

<b>P M:</b>	7.60 lb/MMcf =	<b>2.65 ton/yr</b>
<b>P M-10:</b>	7.60 lb/MMcf =	<b>2.65 ton/yr</b>
<b>S O 2:</b>	0.6 lb/MMcf =	<b>0.21 ton/yr</b>
<b>N O x:</b>	280.0 lb/MMcf =	<b>97.75 ton/yr</b>
<b>V O C:</b>	5.5 lb/MMcf =	<b>1.92 ton/yr</b>
<b>C O:</b>	84.0 lb/MMcf =	<b>29.33 ton/yr</b>

Fuel equivalence limit for NO.2 Fuel Oil based on NOx emissions from natural gas:

$$\frac{93.86 \text{ \#2 F.O. potential emissions (ton)}}{9385.71 \text{ \#2 F.O. potential usage (kgal/yr)}} / \frac{183.96 \text{ n.g. potential emis. (ton/yr)}}{1314.00 \text{ n.g. potential usage (MMCF/yr)}} = 0.0714 \frac{\text{MMcf Natural Gas}}{\text{Kgal No.2 fuel oil burned}}$$

**Secondary Fuel Usage Limitation - No.2 Fuel Oil**

In order to qualify for the FESOP program, this facility must limit SO2 emissions from No.2 fuel oil combustion to 99 tons per year. The SO2 emissions from the aggregate dryer must be limited to (99.0 - 4.44 from hot oil heater) = 94.56 tons/yr.



The following calculations determine the amount of emissions created by distillate fuel with a sulfur content of 0.50 % sulfur with a fuel usage limitation 2,473.87 gal/yr. Potential combustion emissions for SO2 were based on the emission factors and the fuel usage limitation for No. 2 distillate oil.

Fuel Oil: #2 distillate oil

$$\frac{94.56 \text{ tons SO2/year limited}}{333.19 \text{ tons SO2/year potential}} \times \frac{9385.71 \text{ Kgals}}{\text{year potential}} = \frac{2663.66 \text{ Kgals}}{\text{year limited}}$$

$$\text{No. 2 Distillate Oil: } \frac{2,663,662 \text{ gal/yr}}{2,000 \text{ lb/ton}} \times \text{Ef (lb/1,000 gal)} = (\text{ton/yr})$$

PM:	2.0 lb/1000 gal =	2.66 ton/yr
PM-10:	1.0 lb/1000 gal =	1.33 ton/yr
SO2:	71.0 lb/1000 gal =	94.56 ton/yr
NOx:	20.0 lb/1000 gal =	26.64 ton/yr
VOC:	0.20 lb/1000 gal =	0.27 ton/yr
CO:	5.0 lb/1000 gal =	6.66 ton/yr

Fuel equivalence limit for natural gas based on SO2 emissions from #2 distillate fuel oil:

$$\frac{0.39 \text{ n.g. potential emis. (ton/yr)}}{1314.00 \text{ n.g. potential usage (MMCF/yr)}} \div \frac{333.19 \text{ #2 F.O. potential emissions (ton/yr)}}{9385.71 \text{ #2 F.O. potential usage (kgal/yr)}} = 0.0084 \frac{\text{Kgal No.2 Fuel Oil}}{\text{MMCF n.g. burned}}$$

#### Aggregate dryer Emissions Summary after Fuel Usage Limitations

Criteria Pollutant:

			Worst Case Fuel
PM:	2.0 lb/1000 gal =	2.66 ton/yr	No. 2 Fuel Oil
PM-10:	7.6 lb/MMcf =	2.65 ton/yr	Natural Gas
SO2:	71.0 lb/1000 gal =	94.56 ton/yr	No. 2 Fuel Oil
NOx:	280 lb/MMcf =	97.75 ton/yr	Natural Gas
VOC:	5.5 lb/MMcf =	1.92 ton/yr	Natural Gas
CO:	84 lb/MMcf =	29.33 ton/yr	Natural Gas

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**\*\* source emissions after controls \*\***

In order to qualify for the FESOP program, this facility must limit PM-10, VOC, NOx, SO2, and CO emissions to 99 tons per year. Consequently, VOC emissions from cold mix storage must be limited to 76.63 tons per year (99.0 ton/yr - 22.38 ton/yr from the hot oil heater, aggregate dryer burner, and aggregate drying).

hot oil burner		nonfugitive	
PM:	0.13 ton/yr x	100.00% emitted after controls =	0.13 ton/yr
PM-10:	0.07 ton/yr x	100.00% emitted after controls =	0.07 ton/yr
aggregate drying:		nonfugitive	
PM:	56,067 ton/yr x	0.10% emitted after controls =	53.26 ton/yr
PM-10:	7,887 ton/yr x	0.36% emitted after controls =	28.39 ton/yr

bin loading & conveying: fugitive				
P M:	1.27 ton/yr x	50%	emitted after controls =	0.64 ton/yr
P M-10:	0.61 ton/yr x	50%	emitted after controls =	0.30 ton/yr
screening & batch drops: nonfugitive				
P M:	3.68 ton/yr x	4.29%	emitted after controls =	0.16 ton/yr
P M-10:	1.75 ton/yr x	4.29%	emitted after controls =	0.08 ton/yr
unpaved roads: fugitive				
P M:	12.86 ton/yr x	50%	emitted after controls =	6.43 ton/yr
P M-10:	4.50 ton/yr x	50%	emitted after controls =	2.25 ton/yr
storage piles: fugitive				
P M:	1.18 ton/yr x	50%	emitted after controls =	0.59 ton/yr
P M-10:	0.41 ton/yr x	50%	emitted after controls =	0.21 ton/yr
cold mix VOC storage:				
VOC:	63,298.06 ton/yr x	4,561	Limited Throughput (tons/yr)* =	76.63 ton/yr
		263,742	Potential Asphalt Throughput (tons/yr)	
		3,767,742	Potential Stockpile Throughput (tons/yr)	

\* The limited cutback asphalt throughput is based on 7.0% cutback asphalt present in stockpile mix.

**\*\* summary of source emissions after limits/controls \*\***

Criteria Pollutant:	Total
PM:	61.20 ton/yr
PM-10:	31.29 ton/yr
S O 2:	99.00 ton/yr
N O x:	99.00 ton/yr
V O C:	99.00 ton/yr
C O:	30.06 ton/yr

**\*\* miscellaneous \*\***

**326 IAC 7 Compliance Calculations:**

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

$$\begin{array}{rcl} 0.5 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} & = & 70 \text{ lb/1000gal} \\ 70 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} & = & 0.50 \% \end{array}$$

Sulfur content must be less than or equ 0.50% to comply with 326 IAC 7.

**326 IAC 6-3-2 Compliance Calculations:**

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

$$\text{limit} = 55 * (400 ^{0.11}) - 40 = 66.31 \text{ lb/hr or } 290.45 \text{ ton/yr}$$

PM emissions from the aggregate dryer are controlled to 53.26 tons/yr < 224.6 tons/(Will comply)

**PM-10 Emission Limit:**

(99.0 tons PM-10/yr - 2.91 tons PM-10/yr from other sources)

$$= 96.1 \text{ tons PM-10/yr} = 21.9 \text{ lbs/hr from aggregate dryer}$$

PM-10 emissions from the aggregate dryer are controlled to 28.39 tons/yr < 96.1 ton (Will comply)

**40 CFR Part 60.90, Subpart I (Standards of Performance for Hot Mix Asphalt Plants) Compliance Calculations:**

The following calculations determine compliance with NSPS, which limits stack emissions from asphalt plants to 0.04 gr/dscf:

$$\frac{53.26 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb}}{525,600 \text{ min/yr} * 36,016 \text{ dscf/min}} = 0.039 \text{ gr/dscf (will comply)}$$

Allowable particulate emissions under NSPS equate to 54.09 tons per year, or 12.35 lbs/hr.

Note:

$$\begin{array}{l} \text{SCFM} = 48,430 \text{ acfm} * (460 + 68) / (460 + 250) \\ = 36,016 \text{ scfm} \end{array}$$

### Hazardous Air Pollutants (HAPs)

#### \*\* aggregate dryer burner\*\*

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls (0.50 % sulfur, from the aggregate dryer burner, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs)  $\frac{150 \text{ MMBtu/hr} \times 8760 \text{ hr/yr}}{2,000 \text{ lb/ton}} \times \text{Ef (lb/10}^6 \text{ Btu)} = (\text{ton/yr})$

		Potential To Emit	Limited Emissions
<b>Arsenic</b>	4.2 lb/10 <sup>6</sup> Btu =	2.76E-03 ton/yr	2.62E-06 ton/yr
<b>Beryllium:</b>	2.5 lb/10 <sup>6</sup> Btu =	1.64E-03 ton/yr	1.56E-06 ton/yr
<b>Cadmium:</b>	11 lb/10 <sup>6</sup> Btu =	7.23E-03 ton/yr	6.87E-06 ton/yr
<b>Chromium:</b>	67 lb/10 <sup>6</sup> Btu =	4.40E-02 ton/yr	4.18E-05 ton/yr
<b>Lead:</b>	8.9 lb/10 <sup>6</sup> Btu =	5.85E-03 ton/yr	5.55E-06 ton/yr
<b>Manganese:</b>	14 lb/10 <sup>6</sup> Btu =	9.20E-03 ton/yr	8.74E-06 ton/yr
<b>Mercury:</b>	3 lb/10 <sup>6</sup> Btu =	1.97E-03 ton/yr	1.87E-06 ton/yr
<b>Nickel:</b>	170 lb/10 <sup>6</sup> Btu =	1.12E-01 ton/yr	1.06E-04 ton/yr
<b>Total HAPs =</b>		<b>1.84E-01 ton/yr</b>	<b>1.75E-04 ton/yr</b>

#### \*\* aggregate drying: batch-mix plant \*\*

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-9 for a batch mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (natural gas combustion).

Pollutant: Ef lb/ton x  $\frac{400 \text{ ton/hr} \times 8760 \text{ hr/yr}}{2000 \text{ lb/ton}}$

#### Hazardous Air Pollutants (HAPs):

		Potential To Emit	Limited Emissions
<b>Acetaldehyde:</b>	6.40E-04 lb/ton =	1.12 ton/yr	1.12 ton/yr
<b>Benzene:</b>	3.50E-04 lb/ton =	0.61 ton/yr	0.61 ton/yr
<b>Ethylbenzene:</b>	3.30E-03 lb/ton =	5.78 ton/yr	5.78 ton/yr
<b>*Formaldehyde:</b>	8.60E-04 lb/ton =	1.51 ton/yr	1.51 ton/yr
<b>Quinone:</b>	2.70E-04 lb/ton =	0.47 ton/yr	0.47 ton/yr
<b>Toluene:</b>	1.80E-03 lb/ton =	3.15 ton/yr	3.15 ton/yr
<b>**Total Polycyclic Organic Matter (POM):</b>	1.270E-04 lb/ton =	0.22 ton/yr	0.22 ton/yr
<b>Xylene:</b>	4.30E-03 lb/ton =	7.53 ton/yr	7.53 ton/yr
<b>Total HAPs =</b>		<b>20.41 ton/yr</b>	<b>20.41 ton/yr</b>

\* The emission factor for formaldehyde from fuel oil firing (0.0032 lb/ton) exceeds the formaldehyde emission factor from natural gas firing (0.00086 lb/ton). Consequently, the worst case emissions for formaldehyde are 2.24 ton/yr. However, since the VOC emissions from natural gas combustion exceed the VOC emissions from fuel oil firing, the natural gas emission factor was used to avoid overestimating total VOC emissions.

\*\* total POM includes 2-Methylnaphthalene, Acenanaphthalene, Acenaphthalene, Anthracene, Benzo(a)anthracene, Benzo(b)fluoranthrene, Benzo(k)fluoranthrene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, and Pyrene.

#### \*\* summary of source HAP emissions potential to emit \*\*

#### Hazardous Air Pollutants (HAPs):

Acetaldehyde: 1.121 ton/yr

Arsenic:	0.003 ton/yr
Benzene:	0.613 ton/yr
Beryllium:	0.002 ton/yr
Cadmium:	0.007 ton/yr
Chromium:	0.044 ton/yr
Ethylbenzene:	5.782 ton/yr
Formaldehyde:	1.507 ton/yr
Manganese:	0.009 ton/yr
Mercury:	0.002 ton/yr
Nickel:	0.112 ton/yr
Quinone:	0.473 ton/yr
Toluene:	3.154 ton/yr
Total POM:	0.223 ton/yr
Xylene:	7.534 ton/yr
<b>Total:</b>	<b>20.58</b>

**\*\* summary of source HAP limited emissions \*\***

**Hazardous Air Pollutants (HAPs):**

Acetaldehyde:	1.121 ton/yr
Arsenic:	0.000 ton/yr
Benzene:	0.613 ton/yr
Beryllium:	0.000 ton/yr
Cadmium:	0.000 ton/yr
Chromium:	0.000 ton/yr
Ethylbenzene:	5.782 ton/yr
Formaldehyde:	1.507 ton/yr
Manganese:	0.000 ton/yr
Mercury:	0.000 ton/yr
Nickel:	0.000 ton/yr
Quinone:	0.473 ton/yr
Toluene:	3.154 ton/yr
Total Polycyclic Organic Matter:	0.223 ton/yr
Xylene:	7.534 ton/yr
<b>Total:</b>	<b>20.41</b>